UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,375	05/25/2001	Ruiguo Yang	2006579-0155	4422

69665 7590 08/27/2008

CHOATE, HALL & STEWART / CITRIX SYSTEMS, INC.
TWO INTERNATIONAL PLACE
BOSTON, MA 02110

EXAMINER	
NGUYEN, DUSTIN	

ART UNIT	PAPER NUMBER
2154	

MAIL DATE	DELIVERY MODE
08/27/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RUIGUO YANG and HENRY COLLINS

Appeal 2008-2771
Application 09/866,375
Technology Center 2100

Decided: August 27, 2008

Before JEAN R. HOMERE, ST. JOHN COURTENAY III, and STEPHEN C. SIU, *Administrative Patent Judges*.

COURTENAY, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1-20. We have jurisdiction under 35 U.S.C. § 6(b). An oral hearing for this appeal was conducted on August 13, 2008.

We reverse.

THE INVENTION

The disclosed invention relates generally to communication between an application server and a thin client in a distributed system. More particularly, Appellants' invention is directed to the reduction in the amount of graphical display data transmitted over a low bandwidth transport protocol mechanism (Spec. 1).

Independent claim 1 is illustrative:

> 1. A method of remotely controlling, by a server, the formation of an off-screen surface at a client coupled to the server via a communications network, the method being performed at the server and comprising the steps of:
>
> instructing the client to select a first memory region for allocation to the off-screen surface, the first memory region corresponding to a memory coupled to the client;
>
> transmitting indicia of a graphical data to the client; and
>
> instructing the client to copy the graphical data associated with the indicia to a particular location within the first memory region.

THE REFERENCES

The Examiner relies upon the following references as evidence in support of the rejections:

Clapp	US 6,073,192	June 6, 2000
Hanko	US 6,483,515 B1	Nov. 19, 2002
Peterson	US 2003/0084052 A1	May 1, 2003

THE REJECTIONS

Claims 1, 2, 4-9, 12, and 14-18 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Clapp in view of Hanko.

Claims 3, 10, 11, 13, 19, and 20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Clapp in view of Hanko and Peterson.

PRINCIPLES OF LAW

"What matters is the objective reach of the claim. If the claim extends to what is obvious, it is invalid under § 103." *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1742 (2007). To be nonobvious, an improvement must be "more than the predictable use of prior art elements according to their established functions." *Id.* at 1740. Appellants have the burden on appeal to the Board to demonstrate error in the Examiner's position. *See In re Kahn*, 441 F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [under § 103] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)). Therefore, we look to Appellants' Briefs to show error in the proffered prima facie case.

FINDINGS OF FACT

The following Findings of Facts (FF) are shown by a preponderance of the evidence:

The Clapp reference

1. Clapp teaches a peripheral audio/visual communication system that transmits video, audio, and other information acquired from a local conferencing site, and receives audio and video information from a remote conferencing site (col. 3, ll. 14-19).
2. Clapp teaches that local off-screen memory is allocated (at step 630, Fig. 12) subsequent to the user selecting a local active window application at the local host computer system (step 628, Fig. 12). See also Clapp, column 11, lines 32-37.
3. Clapp teaches that "remote host computer system 264 preferably operates visual conferencing application software substantially similar to that operating on the local host computer system 244 to enhance video conferencing between the local and remote conferencing sites." (col. 12, ll. 7-11).
4. Clapp teaches that "the features and functionality discussed with reference to the local audio/visual communication system 242 are equally applicable to the remote audio/visual communication system 262." (col. 17, ll. 20-24).

The Hanko reference

5. Hanko teaches "a method of updating a display device to fill at least a portion of a display area on the display device with a

tiled pattern including repetitions of a tile image data stored at a host system interconnected to the remote system via a communication link." (col. 1, ll. 39-43).

6. Hanko teaches that "[t]he display method comprises the host system determining the number of replications of the tile image data to fill the display area and transmitting display information to the remote system via the communication link, including: the tile image data; and replication information." (col. 1, ll. 43-48)
7. Hanko's "remote system receives the display information and generates the tile pattern by performing steps including: storing the tile image data starting at a location in an on-screen frame buffer corresponding to a coordinate location within the display area; and copying the tile image data into the frame buffer based on the replication information until said portion of the display area is filled with said tiled pattern." (col. 1, ll. 48-55).

SUMMARY OF ARGUMENTS

In the Appeal Brief, Appellants present the following principal arguments:

> In Clapp, there is no positive instruction transmitted from the local computer to the remote computer. Said another way, the local computer is not controlling the remote computer. While the local computer provides data to the remote computer, this is not the same as controlling the remote computer by issuing one or more instructions to the remote computer.
>
> More specifically, Clapp is silent as to transmitting an instruction from the local computer to the remote computer that

> instructs the remote computer to select a first memory region of the client as an off-screen surface. This is not surprising because Clapp recites a peripheral video conferencing system is present at both a local and a remote conferencing site and communicates with a respective host computer system. Neither of the peripheral video conferencing system at the local or at the remote conferencing sites [issues] instructions [to] the other to do anything because, in order to permit document sharing and collaboration each of the peripheral video conferencing system needs to be able to operate independent of control of the other. As such, Clapp does not teach ***a server that instructs the client*** to select a first memory region for allocation to an off-screen surface.
>
> Hanko fails to cure this deficiency of Clapp. As shown above, Hanko teaches that the HID does not copy the tile image into an off-screen surface. Instead, the HID copies and replicates the tile image into an ***on-screen buffer.*** In fact, Hanko goes to lengths in the background section of the patent to discourage the use of an off-screen surface. Therefore, any hypothetical combination of Clapp and Hanko fails to disclose, teach, or suggest a server ***instructing a client*** to select a first memory region for allocation to ***an off-screen surface.***

(App. Br. 8-9).

The Examiner disagrees. The Examiner responds that "the recitation of 'a method of remotely controlling, by a server, the formation of an off-screen surface at a client' has not been given patentable weight because the recitation occurs in the preamble." (Ans. 9, ¶1).

Having disposed of the preamble limitations, the Examiner makes the following findings regarding the argued limitation of "instructing the client to select a first memory region for allocation to the off-screen surface . . . ." (claim 1):

> Then, Clapp discloses ***the user selects a local active application window*** from the menu for sharing with a remote conferencing site and the local host computer system ***allocates an appropriate amount of system memory to accommodate a local off-screen window buffer,*** and ***then a copy of the pixels or pixel data defining the local active window is transferred to the local off-screen window buffer*** [i.e. instructing a client to select a first memory region for allocation to an off-screen buffer as claimed] [628-632, Figure 12; and col 11, lines 33-64]. In addition, Clapp also discloses a full update of pixel data associated with the video image of the entire local active window as reflected in the local off-screen window buffer [i.e. server] is initially transmitted over the communication channel and received by the remote audio/visual communication system [i.e. client] [Figure 11] and ***the pixel data associated with the entire local active window is first copied to the remote off-screen window buffer*** [i.e. instructing a client to select a first memory region for allocation to an off-screen buffer as claimed] [638- 656, Figure 12; and col 12, lines 7-53].

(Ans. 9 and 10).

In the Reply Brief, Appellants counter that:

> [t]he Examiner has taken a new position in rejecting claims 1-20 in the Answer. For the first time in over six years of prosecution the Examiner has informed the Appellants that their reliance on elements of the preamble[s] of the independent claims [is] now not being given any patentable weight, even though the Examiner has previously stated that the elements of the preamble are found in the combination of Clapp and Hanko.

(Reply Br. 4, ¶1).

On pages 5-7 of the Reply Brief, Appellants document their reliance on elements of the preambles of the independent claims during various stages of the prosecution history.

ANALYSIS

We consider the Examiner's rejection of independent claims 1 and 12 as being unpatentable over Clapp in view of Hanko. We consider the following issues that flow from the contentions of the Appellants and the Examiner:

Preamble limitations

We consider first the issue of whether the limitations of the preambles of independent claims 1 and 12 should be accorded patentable weight. We note that Appellants have clearly documented their reliance on elements of the preambles of the independent claims during various stages of the prosecution history (*see* Reply Br. 5-7). Moreover, on page 5 of the Reply Brief, Appellants have cited *Catalina Mktg. Int'l v. Coolsavings.com, Inc.*, for the proposition that "clear reliance on the preamble during prosecution to distinguish the claimed invention from the prior art transforms the preamble into a claim limitation because such reliance indicates use of the preamble to define, in part, the claimed invention." *Catalina Mktg. Int'l v. Coolsavings.com, Inc.*, 289 F.3d 801, 808-09 (Fed. Cir. 2002). After reviewing the record before us, it is our view that this point of law is on four corners with the facts of the present case.

We find that Appellants have clearly relied on the preamble during the prosecution history, and we conclude that such reliance indicates that they used the preamble to define, in part, the claimed invention. Therefore, we agree with Appellants that the preamble limitations of independent claims 1 and 12 should be accorded patentable weight.

Elements under 35 U.S.C. § 103

We consider next the dispositive issue of whether the cited combination of Clapp and Hanko teaches and/or suggests a server (as required by the preambles of claims 1 and 12) that performs the recited step or function of instructing the client to select a first memory region for allocation to the off-screen surface, as required by each independent claim.

After considering the evidence before us, and the respective arguments on both sides, we agree with Appellants that the cited combination of Clapp in view of Hanko falls short of rendering Appellants' claimed invention obvious. At the outset, we agree with Appellants that the Examiner's disavowal of the preamble limitations at this late stage in the prosecution is tantamount to an admission that the cited references do not teach the argued step or function of a *server* instructing the client to select a first memory region for allocation to the off-screen surface, as required by each independent claim (*see* Ans. 9, ¶1).

More significantly, when we closely examine the Clapp reference, we find no disclosure of specific details pertaining to *how* the local off-screen window buffer 604 is allocated. Indeed, the portion of the Clapp reference relied on by the Examiner merely discloses that the local host computer system allocates local off-screen memory *subsequent to* the user selecting a local active window application at the local host computer system (FF 2), as follows:

> The user, at step 628, then selects a local active application window 602 from the menu 600 for sharing with a remote conferencing site. The local host computer system 244, at step 630, preferably allocates an appropriate amount of system

> memory to accommodate a local off-screen window buffer 604 and a local pixel update table 606.
> (Clapp, col. 11, ll. 32-37).

Significantly, Clapp teaches that the local host computer system and the remote host computer system both operate in substantially the same fashion (FF 3-4). Therefore, it appears that the allocation of off-screen memory at Clapp's remote conferencing system is performed in substantially the same manner, i.e., allocation occurs *subsequent* to the user selecting a local active window application, as discussed *supra* regarding the local conferencing system (FF 2). Moreover, we find nothing in Clapp's description of receiving remote data that teaches or suggests that a first memory region is selected for allocation to an off-screen buffer responsive to receiving data or instructions (*see* Clapp's discussion at col. 10, l. 19 through col. 11, l. 4). We find that Clapp's off-screen buffer memory region must *necessarily* be selected and allocated *prior* to the copying of pixel data from the active window to the off-screen buffer (*see* Clapp, col. 12, ll. 18-20). Therefore, we find that merely copying pixel data is not the same as the *allocation* or *formation* (see preamble) of an off-screen surface, as claimed (claims 1 and 12).

We acknowledge that Clapp teaches the use of instructions. However, we find that Clapp does not teach sending instructions between the local and remote video conferencing systems (or vice versa), as discussed *infra*. Instead, we find that Clapp teaches sending and receiving pixel and/or audio data for the purpose of window sharing and document collaboration within

the context of a distributed video conferencing system (Clapp, *see e.g.,* col. 11, ll. 5-22).

Clapp discloses that "coordination instructions" to configure and coordinate the operation of the audio/visual communication system are transmitted between host computer system 72 and audio/visual communication system 70. However, both host computer system 72 and communication system 70 are integral components of a *single* video conferencing system that is located on either the *local* or *remote* side of communication channel 82 (that serves to connect the local and remote video conferencing systems), as follows:

> The host computer system 72, when coupled to the host computer interface panel 140, communicates with the audio/visual communication system 70 preferably by issuing one or more coordination instructions to configure and coordinate the operation of the audio/visual communication system 70.

(Clapp, col. 7, ll. 60-65, *see also* Figs. 3, 7, and 11).

Clapp's Figure 3 illustrates a *single* video conferencing system (either local or remote) that contains host computer system 72 and audio/visual communication system 70 as integral components (col. 3, ll. 35-37, Fig. 3).

See also Clapp's description at column 13:

> A host computer system 72, in cooperation with visual conferencing application software operating thereon, preferably issues a variety of coordination instructions to the audio/visual communication system 70 to facilitate video conferencing between a local and remote conferencing site. The host computer system 72 preferably coordinates the transfer of video frame data between the audio/visual communication system [70] and the host computer system 72.

(Clapp, col. 13, ll. 20-27, *see also* Figs. 3, 7, and 11).

Again, we emphasize that host computer system 72 and audio/visual communication system 70 are each integral components of a *single* video conferencing system that is located on either the *local* or *remote* side of communication channel 82 (Clapp, *see* Figs. 3, 7, and 11). Thus, the instructions disclosed by Clapp are not transmitted between local and remote video conferencing systems (i.e., between a server and a client).

Clapp further teaches the use of read and write request instructions, these instructions being transmitted again between host computer system 72 and audio/visual communication system 70, both of which are integral components of a *single* video conferencing system (either local or remote):

> The host computer system 72 preferably issues read and write request instructions to the audio/visual communication system 70 to coordinate the transfer of video data therefrom in a manner similar to that when communicating with other peripheral devices, such as a disk drive array, for example. In response to the read and write request instructions, the audio/visual communication system 70 transfers a requested number of video frames and other configuration parameters between the host computer system 72 and the audio/visual communication system 70. In accordance with this embodiment, the audio/visual communication system 70 operates in a slaved relationship with the host computer system 72, whereby all coordination instructions are produced by the host computer system 72, and responded to by the audio/visual communication system 70.

(Clapp, col. 13, ll. 28-42, *see also* Figs. 3, 7, and 11).

Thus, from the above descriptions, we find Clapp is silent regarding a server (as required by the preambles of instant claims 1 and 12) that

performs the recited step or function of instructing the client to select a first memory region for allocation to the off-screen surface, as required by each of Appellants' independent claims. In contrast, the aforementioned instructions in Clapp are merely instructions transmitted between components of a *single* video conferencing system (either local or remote). Moreover, we see nothing in Clapp that teaches sending an instruction from a local video conferencing system to a remote video conferencing system (or vice versa) to select a first memory region for allocation to the off-screen buffer. As discussed *supra*, we find no specific disclosure in Clapp that explains *how* the local off-screen window buffer 604 is allocated. We only know that Clapp's off-screen window buffer is allocated subsequent to a user selecting a local active window application on either the local or the remote side (*see* FF 2-4).

After reviewing the secondary Hanko reference, we see nothing in Hanko that overcomes the deficiencies of Clapp, as previously discussed (*see* FF 5-7).

After considering the totality of the record before us, it is our view that the weight of the evidence supports Appellants' contention that the Examiner has not presented a prima facie case establishing how Clapp's local conferencing system (acting as a server) instructs the remote conferencing system (or vice versa) to select a first memory region for allocation to an off-screen buffer (corresponding to the claimed off-screen surface). For us to affirm the Examiner on this record would require speculation on our part. In particular, we find the gap in the combined teachings of the cited references to be uncomfortably wide and such gap

cannot be bridged with theories or speculation. In the alternative, if the Examiner is relying upon an inherent teaching in the cited references, our reviewing court has established that "[i]nherency … may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999).

Accordingly, we conclude that Appellants have met their burden of showing that the Examiner erred. Therefore, we reverse the Examiner's rejection of independent claims 1 and 12 as being unpatentable over Clapp in view of Hanko. Because we have reversed the Examiner's rejection of each independent claim on appeal, we also reverse the Examiner's rejections of the dependent claims on appeal.

CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude Appellants have met their burden of showing that the Examiner erred in rejecting claims 1-20 under 35 U.S.C. § 103 for obviousness.

DECISION

We reverse the Examiner's decision rejecting claims 1-20.

REVERSED

tdl/ce

CHOATE, HALL & STEWART / CITRIX SYSTEMS, INC.
TWO INTERNATIONAL PLACE
BOSTON MA 02110